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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/557,672

04/25/2000

Michael K. Brand

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06/09/2006

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EXAMINER

PHAN, THAI Q

ART UNIT

PAPER NUMBER

2128

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/557,672	Applicant(s) BRAND ET AL.	
	Examiner Thai Phan	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 and 23 is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12-23-05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to applicants' amendment filed on 03/21/2006.

Claims 1-23 are pending in the Action.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Tegethoff, Mauro, US patent no. 5,539,652.

As per claim 1, Tegethoff anticipates a method for manufacturing test simulation in electronic circuit design with feature limitations very identical to the claimed invention (Abstract and Field of the Invention). According to Tegethoff, the method includes steps:

Performing testing data for a product to a point of product failure to collect stress testing data, the stress testing data representing the response of the product operating in a first environment (col. 6, line 59 to col. 7, line 9, col. 10, lines 16-33, col. 27, line 55 to col. 29, line 5, col. 40),

Calculating the mean time between failures or lifetime for the product operating in a second environment with different operating conditions based on the accelerated

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stress testing data in determining product reliability as claimed (cols. 6-10, cols. 27-28, col. 29, lines 10-61, cols. 39-40, col. 46, lines 33-43).

As per claim 2, Tegethoff anticipates various working environments being used to analyze or predict failure time (cols. 6-10).

As per claim 3, Tegethoff anticipates stress data derived from stress environment, temperature tests, stress conditions, etc before the test product fails.

As per claims 4-7, Tegethoff anticipates various stress tests or different test loads to test product life cycle (cols. 6-10, 39-40, 46, for example).

As per claim 8, Tegethoff anticipates test specification for user application such as for the claimed BOM test.

As per claims 9-11, Tegethoff anticipates the claimed feature limitations such as stress test during product design cycle, manufacturing, applications for commercial use, computer test, etc.

As per claims 12-14, Tegethoff anticipates a method for manufacturing test simulation in electronic circuit design with feature limitations very identical to the claimed invention (Abstract and Field of the Invention). According to Tegethoff, the method includes steps:

Performing testing data for a product to a point of product failure to collect stress testing data, the stress testing data representing the response of the product operating in a first environment (col. 6, line 59 to col. 7, line 9, col. 10, lines 16-33, col. 27, line 55 to col. 29, line 5, col. 40),

Calculating the mean time between failures for the product operating in a second environment based on the accelerated stress testing data as claimed. Biggs discloses stress history data and a variety of test loads or all the stresses in determining product reliability (cols. 6-10, cols. 27-29, 39-40).

As per claim 15, Tegethoff anticipates mean time between failures for various loading conditions or working environment as claimed (cols. 40-46).

As per claims 16-21, Tegethoff discloses test data, stress testing, temperature tests, vibration tests, and a computer system for implementation computation algorithm to compute failure time of the product design for various working conditions as claimed.

Allowable Subject Matter

Claims 22-23 are allowed. Following is reasons for the allowance. The claimed invention is a method of estimating a product life. The claims further requires steps performing accelerated stress testing on the re-designed product to collect redesign accelerated stress testing data for the re-designed product; based on the re-design accelerated stress testing data, calculating a mean-time-between-failures for the re-designed product; and based on the mean-time-between-failures for the product and the mean-time-between-failures for the re-designed product, calculating a proportion change in product life resulting from the re-design.

Response to Arguments

Applicant's arguments filed 03/21/2006 have been fully considered but they are not persuasive.

In response to applicants' argument Tegethoff does not disclose performing accelerated stress testing on a re-designed product, and based on a mean-time-between-failures for the product and a mean-time-between-failures for the re-designed product, calculating a proportion change in product life resulting from the re-design, as recited in claim 1, the examiner responds the argued feature of calculating a proportion change in product life resulting from the re-design is not present in claim 1 before for consideration.

In response to applicants' argument the claimed limitations of performing accelerated stress testing on a product (redesign), determining a mean time between failures for the product, Tegethoff discloses such feature limitations (cols. 6-10, cols. 27-28, col. 29, lines 10-61, cols. 39-40, col. 46, lines 33-43).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US patent no. 4,866,714, issued to Adams et al, on Sept. 1989
2. US patent no. 6,571,202, issued to Loman et al, on May 2003

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Phan whose telephone number is 571-272-3783. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 02, 2006



Thai Phan
Patent Examiner